Patent Claims

1. A method for operation of a distributed computer system (SYS) comprising network nodes (NKN, NK1-NK6), each of which has at least one node controller (STR, ST1-ST6) and one communication controller (KK1-KK6), the communication controllers (KKK, KK1-KK6) being connected to each other via at least one communication channel (BUS), and provision being made between the communication controller (KK1-KK6) and the node controller (STR, ST1-ST6) of a network node (NKN, NK1-NK6) for a fault tolerance layer (FTS, FT1-FT6) that is set up to receive messages exchanged between the network nodes (NKN, NK1-NK6), wherein the fault tolerance layer (FTS, FT1-FT6) decides, based on information received pertaining to the status of at least one network node (NKN, NK1-NK6), about the functioning of the at least one network node (NK1-NK6) via a coordination procedure, and the coordination result is made available as an output signal (ASS, AS1-AS6), the at least one network node (NKN, NK1-NK6) being triggered as a function of the output signal (ASS, AS1-AS6).

2. The method as described in Claim 1, wherein the coordination result is made available at one or more hardware outputs of the communication controller (KKK, KK1-KK6)

3.   The method as described in Claim 1 or 2, wherein the result of the coordination is made available as a digital output signal on at least one pin of the communication controller (KKK, KK1-KK6).

4.   The method as described in Claims 1 to 3, wherein membership information of the communication controller (KKK, KK1-KK6) in question is included in the coordination procedure.

5.   The method as described in any of Claims 1 to 3, wherein the fault tolerance layer (FTS, FT1-FT6) uses its own data structure, which is independent of the data structures of the communication controller (KKK, KK1-KK6) and the node controller (STR, ST1-ST2), for the selection of a coordination algorithm and the evaluation messages (NA1-NA6) enlisted for the coordination.

6.   The method as described in any of Claims 1 to 4, wherein the coordination result is made available within network nodes in a memory storage area.

7.   The method as described in any of Claims 1 to 5, wherein at least one node controller (STR, ST1-ST6) is restarted as a function of the output signal (ASS, AS1-AS6).

8.   The method as described in any of Claims 1 to 6, wherein an emergency shutoff of

a node controller (ST1-ST6) is executed as a function of the output signal (ASS,

AS1-AS6).

9.   The method as described in any of Claims 1 to 7, wherein at least one network

node (NKN, NK1-NK6) has an actuator (AKT, AK1-AK4) connected to the node

controller (STR, ST1-ST6), and the actuator (AKT, AK1-AK4) is brought into a

preferred or secure state by the output signal (ASS, AS1-AS6).

10.   The method as described in any of Claims 1 to 8, wherein the communication

between the network nodes (NKN, NK1-NK6) occurs on a time-triggered basis

according to the TTP/C protocol.